AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-16. (CANCELED)

17. (CURRENTLY AMENDED) A hybrid fragment of tetanus toxin consisting of ~~a fragment C and a fraction of fragment B having 11 amino acid residues (amino acids 854-1315 of the tetanus toxin holotoxin)~~ SEQ ID NO: 2, wherein the hybrid fragment is capable of transferring *in vivo* an associated protein, a peptide, or a polynucleotide through a neuromuscular junction and at least one synapse.

18. (CURRENTLY AMENDED) A hybrid fragment of tetanus toxin consisting of ~~a fragment C and a fraction of fragment B having 11 amino acid residues (amino acids 854-1315 of the tetanus toxin holotoxin)~~ SEQ ID NO: 2, and a fraction of a fragment A devoid of its toxic activity corresponding to the proteolytic domain having a zinc-binding motif located in the central part of the chain between amino acids 225 and 245, wherein the hybrid fragment is capable of transferring *in vivo* an associated protein, a peptide or a polynucleotide through a neuromuscular junction and at least one synapse.

19-20. (CANCELED)

21. (PREVIOUSLY PRESENTED) A composition containing an active molecule in association with the hybrid fragment of tetanus toxin according to claim 17.

22. (PREVIOUSLY PRESENTED) The composition according to claim 21, wherein the active molecule is selected from the group consisting of protein SMN (Survival Motor Neuron), BDNF (brain-derived neurotrophic factor), NT-3 (Neurotrophin-

3), NT-4/5 (Neurotrophin 4/5), GDNF (Glial cell-line derived neurotrophic factor), IGF (Insulin-like growth factor), PNI (protease nexin I), SPI3 (Serine Protease Inhibitor protein), ICE (Interleukin -1 Converting Enzyme), Bcl-2, GFP (green fluorescent protein), endonucleases, antibodies or drugs specifically directed against neurodegenerative diseases.

23. (PREVIOUSLY PRESENTED) The composition according to claim 21, wherein the active molecule is a polynucleotide encoding a protein.

24-33. (CANCELED)

34. (PREVIOUSLY PRESENTED) The composition according to claim 23, wherein the polynucleotide further comprises a promoter capable of expression in neurons.

35. (PREVIOUSLY PRESENTED) The composition according to claim 34, wherein the polynucleotide further comprises an enhancer.

36. (CURRENTLY AMENDED) The composition according to claim 22, wherein the endonuclease is I-SceI or CRE.

37. (PREVIOUSLY PRESENTED) The composition according to claim 22, wherein the neurodegenerative disease is latero spinal amyotrophy (LSA).

38. (NEW) A composition comprising a hybrid fragment of tetanus toxin consisting of SEQ ID NO: 2, and an associated protein, peptide, or polynucleotide, wherein said protein, peptide or polynucleotide is associated by a covalent or non-covalent linkage, and said composition transfers *in vivo* said associated protein, peptide or polynucleotide through a neuromuscular junction and at least one synapse.

39. (NEW) A composition comprising a hybrid fragment of tetanus toxin consisting of SEQ ID NO: 2, and a fraction of a fragment A devoid of its toxic activity corresponding to the proteolytic domain having a zinc-binding motif located in the central part of the chain between amino acids 225 and 245, and an associated protein, peptide, or polynucleotide, wherein said protein, peptide, or polynucleotide is associated by a covalent or non-covalent linkage, and wherein said composition transfers *in vivo* an associated protein, peptide or polynucleotide through a neuromuscular junction and at least one synapse.